

CLAIMS

1. A motor power line break detection method of an AC servo driver comprising: a current detector; and a torque controller, the method comprising the steps of:

extracting a torque current component from a three-phase AC detected by the current detector,

comparing a torque command with the torque current component, and

recognizing that a motor power line is broken, if the difference between the torque command and the torque current component exceeds a setup value.

2. A motor power line break detection method of an AC servo driver comprising: a current detector; and a torque controller, the method comprising the steps of:

applying a three-phase AC voltage so as to allow a magnetizing current not generating a torque in a motor to flow,

detecting the consequent current flowing into the motor by the current detector,

extracting a magnetizing current component,

comparing the magnetizing current with the commanded magnetizing current, and

recognizing that a motor power line is broken, if the difference between the magnetizing current and the magnetizing current component exceeds a setup value.

3. The motor power line break detection method of the AC driver as claimed in claim 1, wherein

if it is recognized that the motor power line is broken, application output from a power converter to a motor is shut off, and a brake mechanism is actuated to stop the motor.

4. The motor power line break detection method of the AC driver as claimed in claim 2, wherein

if it is recognized that the motor power line is broken, a mechanism brake is not released, and the motor is not started.